

MAR 13 2006

09/893,943MS174301.01/MSFTP252USAMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

**Listing of Claims:**

1. (Currently amended) A system that facilitates remoting services across application domains in a distributed object system, the system comprising:  
~~a remote object monitor to monitor[[ing]] a remote object, decorated with customized attributes, the remote object monitor acquiring metadata to image the remote object imaged as a proxy object existing in a different application domain, the metadata comprising a class hierarchy including a subclassable object reference base-class, a class that implements the proxy object being extensible through one or more attributes to provide attribute based code, the proxy object wherein the remote object monitor monitors the remote object at least by intercepting client calls on the remote object, facilitating performing the attribute based code activating a custom attribute based process;~~  
~~a remote object manipulator connected to the remote object monitor, the remote object manipulator manipulating the remote object; and~~  
~~a lifetime manager controlling determining [[the]]a lifetime of the remote object, the lifetime manager connected to the remote object manipulator and monitor to employing a lease to determine [[a]]the lifetime of the remote object, the lease comprising an initial lease period.~~
2. (Currently amended) The system of claim 1, where the client calls on the remote object monitor further provides comprise a human readable reference to the remote object.
3. (Previously presented) The system of claim 2, where the human readable reference to the remote object codes information comprising at least one of protocol information, protocol data, an application name and an object URI (Uniform Resource Identifier).
4. (Previously presented) The system of claim 3, where the human readable reference to the remote object is a URL (Uniform Resource Locator).

---

09/893,943

---

MS174301.01/MSFTP252US

5. (Original) The system of claim 3, where the protocol information is at least one of HTTP (Hypertext Transfer Protocol) information and SMTP (Simple Mail Transfer Protocol) information.

6-8. (Canceled).

9. (Currently amended) The system of claim 1, where the custom attribute based process code is to be performed before non-attribute code associated with the proxy object.

10. (Currently amended) The system of claim 1, where the custom attribute based process code is to be performed in parallel with non-attribute code associated with the proxy object.

11. (Currently amended) The system of claim 1, where the custom attribute based process code is to be performed after non-attribute code associated with the proxy object.

12. (Currently amended) The system of claim 1, where the custom attribute based process code is to be performed at least one of before, in parallel with, and/or after non-attribute code associated with the proxy object.

13. (Canceled).

14. (Currently amended) The system of claim 1[[3]], where the lease further comprises a renew on access time.

15-20. (Canceled).

21. (Currently amended) A computer readable medium storing computer executable components to facilitate extending the class that implements the proxy object of [[a]]the system of claim 1 that facilitates remoting services in a distributed object system, the system comprising:

---

09/893,943

MS174301.01/MSFTP252US

~~a remote object monitoring component to acquire metadata relating to a remote object, the remote object decorated with customized attributes and represented by a proxy object, the metadata comprising a class hierarchy including a subclassable object reference base class, the proxy object intercepting and forwarding client calls and facilitating providing custom attribute based processing;~~

~~a remote object manipulating component connected to the object monitoring component; and~~

~~a lifetime managing component controlling the lifetime of a remote object, the lifetime managing component connected to the remote object manipulating component and specifying a pre-determined lifetime for the remote object.~~

22. (Currently amended) A system that provides remoting services across contexts in a distributed object system, the system comprising:

~~an object reference generator producing a human readable object reference to a remote object decorated with customized attributes;~~

~~an object reference extender extending an object reference class subclassed from a base class object reference class;~~

~~an interceptor to facilitate[[ing]]e call activating custom attribute based processing at least in part by intercepting one or more calls between contexts to [[the]]a remote context bound object, the context bound object implemented by a context bound class decorated with one or more customizable attributes; and~~

~~a lifetime monitor to manage[[ing]]e a lifetime of the remote context bound object via a lease having at least an initial lease time.~~

23. (Currently amended) The system of claim 22, where the calls between contexts can be made using [[the]]a human readable object reference to the remote context bound object, the human readable object reference cod[[es]]ing information comprising at least one of protocol information, protocol data, an application name and an object URI (Uniform Resource Identifier).

---

09/893,943

MS174301.01/MSFTP252US

24. (Original) The system of claim 23, where the protocol information is at least one of HTTP (Hypertext Transfer Protocol) information and SMTP (Simple Mail Transfer Protocol) information.

25-26. (Canceled).

27. (Currently amended) The system of claim 22, where the call activated custom attribute based processing ~~is can be~~ performed at least one of before, substantially in parallel with, and/or after non-attribute code associated with a ~~proxy object representing the object~~.

28. (Currently amended) The system of claim 22, where the lease ~~further~~ has a renew on access time.

29. (Canceled).

30. (Currently amended) The system of claim 2[[9]]2, where the lifetime monitor interacts with a garbage collector to control the lifetime of the remote context bound object.

31. (Currently amended) A computer readable medium storing computer executable components to facilitate customizing the one or more customizable attributes of [[a]]the system of claim 22 that provides remoting services in a distributed object system, the system comprising:

an object reference generating component producing a human readable object reference to a remote object decorated with customized attributes;

an object reference extending component extending an object reference class subclassed from a base class object reference class;

an intercepting component facilitating activating custom attribute based processing, the intercepting component facilitating activating custom attribute based processing at least in part by intercepting one or more calls to the remote object; and

09/893,943MS174301.01/MSFTP252US

~~a lifetime monitoring component managing the lifetime of the remote object, wherein the lifetime monitoring component sets an initial lease period to control a lifetime of the remote object.~~

32-40. (Canceled).

41. (Currently amended) A method for providing remoting services in a distributed object system, the method comprising:

~~providing an object reference base class from which a derived object reference class can inherit;~~

~~providing a human readable object reference to an instance of the object reference base class;~~

~~creating a derived object reference class by inheriting from the object reference base class;~~

~~overriding elements of the object reference base class in the derived object reference class;~~

~~adding elements to the derived object reference class;~~

~~controlling the lifetime of a remote object via a lease comprising an initial lease period, the remote object decorated with customized attributes;~~

~~intercepting calls made on the remote object, the calls forwarded by a proxy, the proxy implemented by a public class decorated with one or more customizable attributes;~~

~~determining whether the proxy has attributes having custom attribute based code that desire custom attribute based activation; and~~

~~selectively performing the custom attribute based code associated with the proxy.~~

42. (Currently amended) A computer readable medium storing computer executable instructions to facilitate performing [[a]]~~the method of claim 41 for providing remoting services in a distributed object system, the method comprising:~~

~~providing an object reference base class from which a derived object reference class can inherit, the object reference base class decorated with customizable attributes;~~

---

09/893,943MS174301.01/MSFTP252US

---

providing a human readable object reference to an instance of the object reference base class;

creating a derived object reference class by inheriting from the object reference base class;

overriding elements of the object reference base class in the derived object reference class;

adding elements to the derived object reference class;

controlling the lifetime of a remote object via a lease comprising an initial lease period;

intercepting calls made on the remote object;

determining whether a proxy has attributes that desire custom attribute-based activation;

and

selectively performing custom attribute-based code associated with the proxy.

43. (Previously presented) A system for providing remoting services in a distributed object system, the system comprising:

means for defining a subclassable object reference class;

means for acquiring an instance of the subclassable object reference class;

means for acquiring a human readable reference to the instance;

means for producing a derived object reference class that inherits from the subclassable object reference class;

means for customizing the derived object reference class;

means for creating a lease having an initial lease time that determines the lifetime of a remote object;

means for initiating garbage collection of the remote object upon expiration of the lease;

means for intercepting remote method calls; and

means for selectively activating custom attribute code associated with a proxy.

44. (Currently amended) A data packet adapted to be transmitted between two or more components, the data packet comprising:

computer-executable instructions for performing facilitating the method of claim 41.

09/893,943

MS174301.01/MSFTP252US

45-47. (Canceled).